PATENT COOPERATION TREAT.

From the INTERNATIONAL SEARCHING AUTHORITY	PCT			
FISH & NEAVE Attn. RUSKIN, Barbara A. 1251 Avenue of the Americas New York, NY 10020 UNITED STATES OF AMERICA REFERRED TO NOTED BY	OR THE DECLARATION 1998 (PCT Rule 44.1)			
	Date of mailing (day/month/year) 08/05/1998			
Applicant's or agent's file reference VEN/9602 CIP	FOR FURTHER ACTION See paragraphs 1 and 4 below			
International application No. PCT/US 97/23173	International filing date (day/month/year) 12/12/1997			
VENTANA GENETICS, INC. et al.	ocketed for $\frac{7/8/98}{}$			
1. X The applicant is hereby notified that the International Search Filing of amendments and statement under Article 19. The applicant is entitled, if he so wishes, toamend the claim. When? The time limit for filing such amendments is normal International Search Report; however, for more de	s of the International Application (see Rule 46):			
Where? Directly to the International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Fascimile No.: (41-22) 740.14.35				
2. The applicant is hereby notified that no International Search Article 17(2)(a) to that effect is transmitted herewith.				
3. With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that: the protest together with the decision thereon has been transmitted to the International Bureau together with the applicants's request to forward the texts of both the protest and the decision thereon to the designated Offices.				
no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.				
4. Further action(s): The applicant is reminded of the following: Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.				
Within 19 months from the priority date, a demand for international wishes to postpone the entry into the national phase until 30 months from the priority date, the applicant must perfor before all designated Offices which have not been elected in the	nths from the priority date (in some Offices even later). In the prescribed acts for entry into the national phase edemand or in a later election within 19 months from the			
Name and mailing address of the International Searching Authority European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Deborah Grandis			

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international polication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been its filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

- [Where originally there were 48 claims and after amendment of some claims there are 51]:
 "Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
- [Where originally there were 15 claims and after amendment of all claims there are 11]:
 "Claims 1 to 15 replaced by amended claims 1 to 11."
- 3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
 "Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or "Claims 7 to 13 cancelled; new claims 15, 16 and 17 added, all other claims unchanged."
- 4. [Where various kinds of amendments are made]: "Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international appplication is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62:2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

PATENT COOPERATION TREAT

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference VEN/9602 CIP	FOR FURTHER see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.			
International application No.	International filing date (day/month/year)		(Earliest) Priority Date (day/month/year)	
PCT/US 97/23173	12/12/1997 13/12/1996		13/12/1996	
Applicant				
VENTANA GENETICS, INC. et	al.			
This International Search Report has bee according to Article 18. A copy is being tra	n prepared by this Internatior ansmitted to the International	nal Searching Autho Bureau.	ority and is transmitted to the applicant	
This International Search Report consists X It is also accompanied by a cop				
Certain claims were found un	searchable(see Box I).			
2. Unity of Invention is lacking(s	see Box II).			
3. X The international application co- international search was carried	ntains disclosure of a nucleo I out on the basis of the sequ	tide and/or amino ence listing	acid sequence listing and the	
X filed	d with the international applica	ation.		
furr	nished by the applicant separa	ately from the interr	national application,	
	but not accompanied by matter going beyond the	a statement to the disclosure in the i	effect that it did not include nternational application as filed.	
Tra	nscribed by this Authority			
4. With regard to the title, χ the	text is approved as submitted	d by the applicant		
	text has been established by		ad as follows:	
5. With regard to the abstract,	text is approved as submitte	d by the applicant		
the Box	text has been established, a	ccording to Rule 38 n one month fromth	.2(b), by this Authority as it appears in ne date of mailing of this International	
6. The figure of the drawings to be pub	lished with the abstract is:			
	suggested by the applicant.		None of the figures.	
bed	cause the applicant failed to s	uggest a figure.		
X bed	cause this figure better charac	cterizes the invention	on.	

INT MATIONAL SEARCH REPORT

PCT/US 97/23173

A. CLASSIFICATION OF SUBJECT MATTER IPC 6 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 $\begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{IPC 6} & \mbox{C12Q} \end{array}$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Α	WO 95 35505 A (UNIV LELAND STANFORD JUNIOR) 28 December 1995 see page 8, line 25 - page 9, line 20; claims 18-20; examples	1-18
Α	WO 91 14768 A (GENETYPE AG) 3 October 1991	·
Α	WO 93 18068 A (TANOX BIOSYSTEMS INC ;CHANG TSE WEN (US)) 16 September 1993	·
X	PATANJALI S R ET AL: "CONSTRUCTION OF A UNIFORM-ABUNDANCE (NORMALIZED) CDNA LIBRARY" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, vol. 88, no. 5, 1 March 1991, pages 1943-1947, XP000368687 see the whole document	30
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"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family	
Date of the actual completion of theinternational search	Date of mailing of the international search report	
28 April 1998	08/05/1998	
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk	Authorized officer	
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Molina Galan, E	

Patent family members are listed in annex.

"T" later document published after the international filing date

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Special categories of cited documents:

Further documents are listed in the continuation of box C.

MINATIONAL SEARCH REPURI

hternational Application No
PCT/US 97/23173

Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 93 02214 A (MEDICAL RES COUNCIL) 4 February 1993 see the whole document	30
X	WO 95 08647 A (UNIV COLUMBIA ;SOARES MARCELO B (US); EFSTRATIADIS ARGIRIS (US)) 30 March 1995 see the whole document	30
K	WO 96 12014 A (LYNX THERAPEUTICS INC) 25 April 1996 cited in the application see the whole document	28,29, 31-33

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International Application No PCT/US 97/23173

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9535505 A	28-12-95	AU 2862995 A CA 2192095 A EP 0804731 A JP 10503841 T	15-01-96 28-12-95 05-11-97 07-04-98
WO 9114768 A	03-10-91	US 5153117 A AU 649027 B AU 7471691 A CA 2059554 A EP 0521909 A IL 97677 A US 5447842 A	06-10-92 12-05-94 21-10-91 28-09-91 13-01-93 23-07-96 05-09-95
WO 9318068 A	16-09-93	US 5213960 A US 5256542 A US 5326696 A	25-05-93 26-10-93 05-07-94
WO 9302214 A	04-02-93	NONE	
WO 9508647 A	30-03-95	US 5482845 A AU 7842594 A US 5637685 A	09-01-96 10-04-95 10-06-97
WO 9612014 A	25-04-96	US 5604097 A AU 3946195 A AU 4277896 A CZ 9700866 A EP 0786014 A EP 0793718 A FI 971473 A NO 971644 A WO 9612039 A US 5695934 A US 5635400 A US 5654413 A	18-02-97 06-05-96 06-05-96 17-09-97 30-07-97 10-09-97 04-06-97 02-06-97 25-04-96 09-12-97 03-06-97 05-08-97